REMARKS

Claims 12, 13, 17, 18, 20, 21, 25, 26, 28, 29 and 35 – 42 have been amended. Claims 1 - 42 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 112, Second Paragraph, Rejection:

The Examiner rejected claim 27 under 35 U.S.C. § 112, second paragraph, as indefinite. Applicants respectfully traverse this rejection for at least the following reasons.

The Examiner rejected claim 27 stating, "the first application server without any second application server." However, lines 8-9 of claim 27 refer to "a plurality of application servers including the first application server." Moreover, the term "first" is simply used as a label to facilitate and clarify later reference to the application server. The use of the term first is not used to imply any particular order or number of application servers. One of ordinary skill in the art would easily be able to ascertain the scope of, and interpret the metes and bounds of, claim 27. Therefore claim 27 is not indefinite and the § 112, second paragraph, rejection is improper.

Section 102(e) Rejection:

The Examiner rejected claims 1-42 under 35 U.S.C. § 102(e) as being anticipated by Lawrence, et al. (U.S. Patent 6,889,333) (hereinafter "Lawrence"). Applicants respectfully traverse this rejection for at least the following reasons.

Regarding claim 1, Lawrence fails to disclose a system configured to compare the client state to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state. The Examiner cites column 7, line 56 to column 8, line 8 and refers to Lawrence's teaching regarding refining a

predictive model of when future updates to a database are likely to occur based in part on a log of previous database updates. However, Lawrence fails to disclose comparing a client state of session data to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state. Instead, the cited passage of Lawrence describes updating a predictive model of how frequently future updates to a database may occur based on the how frequently previous updates to the database have occurred. **Lawrence's system does not involve comparing a client state of session data to a benchmark of the client state of session data to determine a subset of the attributes that have been modified in the client state.**

Lawrence teaches determining when and how often to synchronize to databases based on a predictive model of how divergent the two databases may become over certain time periods. See e.g., column 2, lines 1 – 6; column 1, lines 59-55; column 2, lines 53-58; and column 3, lines 16-27 of Lawrence. Nowhere does Lawrence teach comparing the client state of session data to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state. The Examiner apparently equates Lawrence's original data 12 with a primary state of session data and equates Lawrence's replica data 14 with a client state of session data. Even using the Examiner's interpretation, Lawrence fails to disclose comparing the client state of session data to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state. Using the Examiner's interpretation, in order to anticipate claim 1, Lawrence would have to disclose comparing replica data 14 with a benchmark of replica data 14 to determine a subset of attributes that have been modified in replica data 14. However, nowhere does Lawrence describe comparing replica data 14 with a benchmark of replica data 14 to determine a subset of attributes that have been modified in replica data 14. Furthermore, Lawrence fails to disclose comparing original data 12 to a benchmark of original data 12. Lawrence also does not disclose comparing replica data 14 with original data 12. Thus, Lawrence clearly fails to disclose comparing the client state of session data to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state.

Moreover, Lawrence is not concerned with determining a subset of attributes that have been modified in a client state of session data. Instead, Lawrence is concerned with determining probabilistic models that capture the rate at which a data structure evolves over time. For instance, Lawrence teaches, "the time at which an update to the data structure occurs is the primary information required to create the models" (Lawrence, column 6, lines 51-53). Thus, Lawrence teaches generating predictive models regarding the future rate at which the data structure can be expected to change. Lawrence's system simply does not involve or include comparing a client state of session data to a benchmark of the client state to determine a subset of the attributes that have been modified in the client state.

Additionally, Lawrence fails to disclose synchronizing the primary state with the client state according to the subset of the attributes. The Examiner cites column 6, lines 48-60 where Lawrence describes probabilistic models of the rate at which modifications to a data structure may occur and how that rate may change over time. The cited passage also describes that Lawrence's models are based in part on a log of previous modifications to the data structure. However, Lawrence teaches synchronizing two copies of a data structure based on a prediction of how divergent the two copies may become over time. For example, Lawrence teaches the use of "probabilistic models that capture how a data structure or data set evolves in time" and that these models "allow the application to estimate the number of updates that are likely to have been performed on the data structure or data set, during a specified time period" (Lawrence, column 5, lines 17-26). Lawrence's application may then control when synchronization should occur. Lawrence does not describe synchronizing according to a determined subset of attributes in the client state of session data. In contrast, Lawrence teaches determining when to synchronize based on a predictive model of how divergent two copies of a data structure may become over a particular period of time. **In fact, Lawrence makes no mention at all of *how* synchronization should take place. Instead, Lawrence teaches a method for controlling *when* synchronization should take place.**

Furthermore, Lawrence fails to disclose a distributed store comprising a primary state of session data configured for access by a plurality of application servers. In contrast, at the Examiner's cited passage, Lawrence describes, "a computer network environment having client computers for accessing and interfacing with the network and a server computer for interacting with client computers" (Lawrence, column 4, lines 48-51). The Examiner also cites column 1, lines 49-55 and column 7, line 44 – column 8, line 8. However, none of the cited passages describes a distributed store comprising a primary state of session data *configured for access by a plurality of application servers*. Instead, Lawrence describes a system for controlling when data on a client should be synchronized with data from a server. Nowhere does Lawrence disclose that a plurality of application servers, or any other type of servers, access a primary state of session data in a distributed store.

Additionally, Lawrence fails to disclose that one of the plurality of application servers is configured to provide access to the client state of the session data to processes executing within the application server. Instead, as noted above, Lawrence teaches controlling when to synchronize a version of a data on a client machine with a version of the data on a server machine. Lawrence does not describe an application server providing access to a client state of session data to processes executing within the application server.

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The **identical** invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). For at least the reasons shown above, Lawrence clearly fails to anticipate claim 1.

Thus, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

Regarding claim 10, Lawrence fails to disclose a system configured to determine a subset of the attributes of the primary state of the session data that have been modified in the client state. As noted above, Lawrence teaches determining when and how often to synchronize to databases based on a predictive model of how divergent the two databases may become over certain time periods. See e.g., column 2, lines 1 – 6; column 1, lines 59-55; column 2, lines 53-58; and column 3, lines 16-27 of Lawrence. The Examiner cites column 7, line 56 – column 8, line 9 where Lawrence describes using a prior distribution of when updates to a database occurred to generate a histogram model for estimating a rate at which the database may change in the future. The cited passage does not mention anything about determining a subset of the attributes of a primary state of session data that have been modified in the client state. Using the Examiner's interpretation of Lawrence, in order to anticipate claim 10, Lawrence would have to disclose determining a subset of the attributes of original data 12 that have been modified in replica data 14. However, nowhere does Lawrence mention anything about determining such a subset of attributes of a primary state of session data that have been modified in the client state.

Furthermore, Lawrence is not concerned with determining a subset of attributes that have been modified in a client state of session data. Instead, Lawrence is concerned with determining probabilistic models that capture the rate at which a data structure evolves over time. For instance, Lawrence teaches, "the time at which an update to the data structure occurs is the primary information required to create the models" (Lawrence, column 6, lines 51-53). Thus, Lawrence teaches generating predictive models regarding the future rate at which the data structure can be expected to change. Lawrence's system simply does not involve or include determining a subset of the attributes of the primary state of the session data that have been modified in the client state.

Additionally, Lawrence does not disclose a system configured to synchronize the primary state with the client state <u>according to the subset of attributes that have</u>

been modified. As described above, Lawrence fails to describe anything about how synchronization takes place. Instead, Lawrence is concerned with controlling *when* synchronization should occur using predictive models to estimate how quickly two versions of data diverge over a given period of time. The Examiner cites column 6, lines 48-60 of Lawrence describing a "tool for creating the probabilistic models, and a library for use in the application for merging the probabilistic models." The Examiner refers to synchronizing or updating the primary information required to create the models. However, Lawrence, at the cited passage, teaches that his models "capture the rate a which the [update] operations are performed, and how that rate changes over time." Lawrence then states, "the time at which an update to the data structure occurs is the primary information required to create the models." Thus, Lawrence is not referring to synchronizing a primary state of session data with a client state of session data according to the subset of attributes that have been modified. In contrast, Lawrence is describing using the times that updates occur to model how often a database may be expected to change in the future. Nowhere does Lawrence mention anything about synchronizing a primary state of session data with a client state of session data according to the subset of attributes that have been modified.

Moreover, as described above regarding claim 1, Lawrence fails to disclose a distributed store comprising a primary state of session data configured for access by a plurality of application servers and also does not disclose that **one of the plurality of application servers is configured to provide access to the client state of the session data to processes executing within the application server**. Please refer to the arguments above regarding the rejection of claim 1 for a detailed discussion regarding Lawrence's failure to disclose these limitations.

Thus, the rejection of claim 10 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claims 19, 27 and 35.

Regarding claim 3, Lawrence fails to disclose performing a binary differencing of a binary representation of the client state and a binary representation of the benchmark of the client state to locate the modified attributes. The Examiner (regarding claim 28) cites column 6, lines 47-60 and refers to "update the primary information allows multiple models including sub-logs." The cited passage describes a "tool for creating the probabilistic models, and a library for use in the application for merging the probabilistic models." Lawrence teaches that in order to generate multiple predictive models estimating a future rate of change for a database, "the tool pre-processes the log [that records activity on a database], creating a separate log for each entity to be modeled." Lawrence further states that a probabilistic model is then created for each of these sub-logs independently. However, the cited passage and Lawrence's use of activity logs to create models predicting a future rate of change for a database does not disclose or describe anything regarding performing a binary differencing of a binary representation of the client state and a binary representation of the benchmark of the client state to locate the modified attributes. Lawrence makes no mention of performing any sort of binary differencing between the client state and a benchmark of the client state. Processing logs to models rates of change does not involve performing a binary differencing.

Thus, the rejection of claim 3 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claims 12, 20, 28 and 36.

Regarding claim 4, Lawrence fails to disclose performing an object graph differencing of an object graph representation of the client state and an object graph representation of the benchmark of the client state. The Examiner cites FIG. 6, column 9, line 57 – column 10, line 9 and column 11, lines 5 – 18 of Lawrence. However, contrary to the Examiner's assertion, none of the cited passages, or any other portion of Lawrence, describes performing an object graph differences of an object graph representation of the client state and an object graph representation of the benchmark of the client state. FIG. 6 illustrates, and column 9, line 57 – column 10, line 9 describes, a histogram based probabilistic model for the business part of a news database that is

shown as boxes on a graph. The Examiner other cited passage (column 11, lines 5 – 18) describes that web caches, such as in web browsers, may replicate web pages, allowing the life times of objects to be explicitly set and for fields providing explicit instructions to caches on how to treat a particular web page. Neither a graph of a histogram based predictive model nor a cache of web pages discloses or describes anything regarding performing an object graph differencing of an object graph representation of the client state and an object graph representation of the benchmark of the client state. Nowhere does Lawrence mention anything regarding object graph differencing.

Thus, the rejection of claim 4 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claims 13, 21, 29 and 37.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicants hereby petition for such an extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-12000/RCK.

Also enclosed herewith are the following items:

☐ Return Receipt Postcard

☐ Petition for Extension of Time

☐ Notice of Change of Address

☐ Other:

Respectfully submitted,

/Robert C. Kowert/
Robert C. Kowert, Reg. #39,255
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